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## ABSTRACT OF THE DISCLOSURE

A fuel cell generator apparatus contains at least one fuel cell assembly module with at least one subassembly containing fuel cells, where the subassemblies are fueled at their base by a fuel feed injector attached to a fuel feed pre-reformer connected to fuel distribution manifolds; and where a module housing encloses the subassemblies and is in turn surrounded by a vessel having two ends providing a purge gas space between the housing and vessel; and where at least one fuel gas feed inlet, gaseous oxidant-purge gas feed inlet, and vessel exhaust gas outlet pass through the vessel; where the vessel can be used for pressurized or non-pressurized operation and is preferably tubular.